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Notice of Allowability	Application No.		Applicant(s)	
	10/648,428		YASUE ET AL.	
	Examiner		Art Unit	
	Luis F. Garcia		2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to January 8, 2007.
2. ☒ The allowed claim(s) is/are 15-34 renumbered 1-20 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |


KENNETH VANDERPUYE
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

1. Claims 15-34 are pending instant application.

Allowable Subject Matter

2. Claims 15-34 are allowed.
3. The following is an examiner's statement of reasons for allowance:

As to independent claims 15 and 21, the prior art references of Maeda et al (US 5,351,148), Wu et al (6,134,273), Wei (US 5,243,629), Chung et al (US 5,214,656), Carlin et al (US 4,893,300), Newell et al (US 2002/0024694) and Masuda (US 5,680,238) does not fairly teach or suggest:

...wherein the data amount estimating section previously holds information about each of the first to n'th terminal devices with respect to use of a corresponding one of the prescribed communications lines, and estimates the amount of data for each of the first to n'th data signals based on the information and a current time.

As to independent claims 16 and 24, the prior art references of Maeda et al (US 5,351,148), Wu et al (6,134,273), Wei (US 5,243,629), Chung et al (US 5,214,656), Carlin et al (US 4,893,300), Newell et al (US 2002/0024694) and Masuda (US 5,680,238) does not fairly teach or suggest:

...wherein the parameter control section comprises: a group classifying section for classifying the first to n'th data signals into a plurality of groups in accordance with the amount of data estimated for each of the first to n'th data signals by the data amount estimating section; and a parameter setting section for setting modulation parameters at

the same value for each of data signals classified into the same group by the group classifying section.

As to independent claims 18 and 28, the prior art references of Maeda et al (US 5,351,148), Wu et al (6,134,273), Wei (US 5,243,629), Chung et al (US 5,214,656), Carlin et al (US 4,893,300), Newell et al (US 2002/0024694) and Masuda (US 5,680,238) does not fairly teach or suggest:

...wherein the parameter control section further includes: a condition determination section for determining, based on the individual modulation parameters, whether the first to n'th modulated signals satisfy the condition concerning the transmission quality in the optical transmission path; and a modifying section for modifying the individual modulation parameters when the condition determination section determines that the condition is not satisfied.

As to independent claims 20 and 32, the prior art references of Maeda et al (US 5,351,148), Wu et al (6,134,273), Wei (US 5,243,629), Chung et al (US 5,214,656), Carlin et al (US 4,893,300), Newell et al (US 2002/0024694) and Masuda (US 5,680,238) does not fairly teach or suggest:

... a parameter control section for setting the individual modulation parameters used in the modulating section based on amounts of data for the first to n'th data signals estimated by the data amount estimating section, wherein the individual modulation parameters include the number of subcarriers used for performing discrete multi-tone modulation on each of the first to n'th data signals.

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4. **Claims 15-34 are renumbered 1-20 respectively, and the claim dependency is renumbered accordingly.**

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luis F. Garcia whose telephone number is (571)272-7975. The examiner can normally be reached on 8-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken N. Vanderpuye can be reached on (571)272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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KENNETH VANDERPUYE
SUPERVISORY PATENT EXAMINER